Issues for Future Systems Costing

Panel – 17
5th Annual Acquisition Research Symposium

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IDA/STD

May 15, 2008
### Issues for Future Systems Costing

**5th Annual Acquisition Research Symposium: Creating Synergy for Informed Change, May 14-15, 2008 in Monterey, CA**

**Abstract**

**Subject Terms**

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Two Costing Issues

• Determine how much and who pays for shared data and services in future net-centric programs

• Determine cost implications of including training plans early in the JCIDS and Acquisition processes
Considerations

• Streamlining Acquisition
  – Lean 6 Sigma
  – Concept Decision Pilot Programs
  – Other

• Costing of shared infrastructure

• Include detailed Training Plans and details up-front in Concept Decision and as Program KPPs
Streamlining Acquisition

• Some problems with acquisition?
  – Slow
  – Significant labor requirements to satisfy the “process”
    • Services report they are spending too much time and money producing acquisition documents which no one reads
  – Capabilities frequently reach concept decision and enter into Milestone A or A/B without sufficient “concept refinement”
  – Senior managers request need for analysis driving decisions for program start up or go – no go earlier in concept process

• Recent Improvement Initiatives
  – Lean 6 Sigma working group looked at documents and timing of process - outcome?
  – Four Concept Decision Pilot Programs were formed to expedite critical programs
  – Use Technology Readiness Levels to reign in “over optimism”
GIG Background

Global Information Grid (GIG) – “is a globally interconnected, end to end set of information capabilities, associated processing, and personnel for collecting, processing, storing, disseminating, and managing information on demand”

– Net-Centric Enterprise Services (NCES)
  • Service-Oriented Architecture Foundation (SOAF)
  • Collaboration
  • Discovery & Delivery
  • Portal
– Net-Enabled Command Capability
  • Net-Centric data strategy (2003)
  • C2 in a net-centric environment (2005)
  • Provide data and information needed for timely, informed decisions
Allocating Shared Costs

• DoD has no established process (or understanding of need?) for sponsoring enterprise-level efforts
  – DISA GIG programs example
  – Training Transformation (T2) business model gets at the issue to incentivize Services and Agencies to collaborate on common capabilities
  – Joint Simulation System

• Net-centric environments of the future will require more sharing of infrastructure, data and models

• Related issues
  – Systems interoperability
  – Joint Program Management across programs
  – Up-front systems engineering
  – Redundant costs across enterprise
  – Additional incremental costs for reuse
Training Implications

• **Focus on training during concept development**
  – Training Plans fleshed out in concept definition
  – Training objectives drive use of simulators, simulations and online training tools as part of systems design
  – Ensure learning and performance factors are considered

• **Determine training needs over program life**
  – Establish training as a Key Performance Parameter
  – Include training simulators or training systems for operators/crews prior to introduction of hardware system
  – Include development and operational testing with engineering approach to training

• **Related issues**
  – Safety
  – Joint Program Management
  – Up-front systems engineering
  – Provide continuous training environment
Questions?
Road to Net-Centric Operations

Pre-Web...

- Stovepipe systems
- Little or no interoperability
- Some network connections

...Today...

- More networks
- Some web services
- Various directory & security services
- Uncoordinated Service/Functional IT transformations
- Few authoritative data sources
- Network-Centric, but not Net-Centric

...Joint / Enterprise

The GIG

- Pervasive networks
- Accurate, timely & relevant info to the edge
- ...it’s all about the data...
- Services Oriented
- Dynamically composable architectures
- Mission-effective applications
- Assured, interoperable enterprise services

GIG with Enterprise Services

Net-centric Enterprise Service Providers